

### **In the claims**

1. (Withdrawn and currently amended) A method of protecting an animal from disease, said method comprising:

a. producing, in host cell, one or more disease-related recombinant viral protein or recombinant viral peptide from white spot syndrome virus (WSSV) or Taura Syndrome Virus (TSV) that binds to and blocks viral receptors needed for WSSV or TSV infection in the gut of the animal, wherein the recombinant viral protein or the recombinant viral peptide is selected from the group consisting of VP24, VP28, VP26, VP19, and TSV capsid protein; and

b. delivering, as a feed or feed additive, the recombinant viral protein or the recombinant viral peptide to the animal suspected of being infected by the disease causing viral agent, wherein the recombinant viral protein or the recombinant viral peptide inhibits or retards binding to the viral receptors of the disease causing viral agent that causes the disease in one or more cells of the animal.

2. – 4. (Cancelled)

5. (Withdrawn) The method of claim 1, wherein said producing in a host cell comprises transforming a host cell with a nucleic acid encoding the disease-related protein to form a transformed cell.

6. (Withdrawn) The method of claim 1, wherein the host cell is chosen from bacteria, algae, yeast, fungi, insects, animals, plants, and tissue cultures of any of the above.

7. (Withdrawn and previously presented) The method of claim 6, wherein the host cell is algae.

8. (Withdrawn) The method of claim 6, wherein the host cell is a yeast.

9. (Withdrawn) The method of claim 6, wherein the host cell is a bacterium.

10. (Withdrawn) The method of claim 1, wherein the disease-related protein is a fusion protein.

11. (Cancelled)

12. (Withdrawn and currently amended) The method of claim 11, wherein the recombinant viral protein or the recombinant viral peptide is a truncated recombinant viral protein or peptide having binding affinities for the viral receptors.

13.-16. (Cancelled)

17. (Currently amended) A feed for an animal comprising one or more expressed recombinant viral protein or recombinant viral peptide from white spot syndrome virus (WSSV) or Taura Syndrome Virus (TSV), wherein the recombinant viral protein or the recombinant viral peptide binds to and blocks viral receptors needed for WSSV or TSV infection in the gut of the animal, wherein the recombinant viral protein or the recombinant viral peptide is selected from the group consisting of VP24, VP28, VP26, VP19, and TSV capsid protein.

18. (Currently amended) The feed of claim 17, wherein the recombinant viral protein or the recombinant viral peptide is a truncated recombinant viral protein or a truncated recombinant viral peptide and having binding affinities for the viral receptors.

19. (Currently amended) The feed of claim 17 further comprising host cells in whole or broken form wherein the recombinant viral protein or the recombinant viral peptide was expressed in the host cells.

20. (Previously presented) The feed of claim 19, wherein the host cells are members selected from the group consisting of bacteria, algae, yeast, and fungi.

21. (Currently amended) A feed additive for an animal comprising one or more recombinant viral protein or recombinant viral peptide from white spot syndrome virus (WSSV) or Taura Syndrome Virus (TSV) that inhibits or retards binding to viral receptors needed for WSSV or TSV infection in the gut of the animal, wherein the recombinant viral protein or the recombinant viral peptide is selected from the group consisting of VP24, VP28, VP26, VP19, and TSV capsid protein.

22. (Currently amended) The feed additive of claim 21, further comprising host cells in whole or broken form wherein the recombinant viral protein or the recombinant viral peptide was expressed in the host cells.

23. (Currently amended) The feed additive of claim 21, wherein the recombinant viral protein or the recombinant viral peptide is fed to the animal as purified protein, semi-purified protein, an encapsulated purified protein or encapsulated semi-purified protein.

24. (Currently amended) The feed additive of claim 21, wherein the recombinant viral protein or the recombinant viral peptide is a truncated recombinant viral protein or a truncated recombinant viral peptide, and having binding affinities for the viral receptors.

25. (Currently amended) The feed additive of claim 21, further comprising host cells in whole or broken form wherein the recombinant viral protein or the recombinant viral peptide was expressed in the host cells.

26. (Previously presented) The feed additive of claim 25, wherein the host cells are members selected from the group consisting of bacteria, algae, yeast, and fungi.

27.-31. (Cancelled)

32. (Previously presented) The feed of claim 17, wherein the animal is a crustacean.

33. (Previously presented) The feed of claim 32, wherein the crustacean is shrimp.

34. (Previously presented) The feed of claim 20, wherein the algae are *Chlorella vulgaris*.

35. (Withdrawn and currently amended) The method of claim 1, wherein the feed further comprises the transformed host cells, in whole or broken form, wherein the recombinant viral protein or the recombinant viral peptide was expressed in the transformed host cells.

36. (Withdrawn) The method of claim 1, wherein the animal is a crustacean.

37. (Withdrawn) The method of claim 36, wherein the crustacean is a shrimp.

38. (Withdrawn) The method of claim 37, wherein the algae are *Chlorella vulgaris*.